a. When you run the Assignment Five for the solution of Problem-03, describe the issues if you have any.

A. Yes, I had issues running Assignment Five main file. The issue is that when I tried to start two threads simultaneously there is a conflict between two cashiers data and the data which I see differs to what exactly need to be displayed. This is caused by two threads running in parallel.

b. Add your solution for (a) in the document “LastName\_Solution” and implement the solution.

A. To solve the above issue I had used ***“ReentrantLock”*** method in Walmart class where I lock the thread process for first one until it gets completed. In this process if an exception occurs, I use a try-catch block to catch the exception and print the exception message and lastly, I use a finally block to release the lock.

public Wallmart() {

this.total = 0.0;

itemsAndPrice = new ReentrantLock();

calculatePrice = itemsAndPrice.newCondition();

}

public void totalPrice(String[] itemNames,double[] price) {

itemsAndPrice.lock();

try {

double newTotal = 0.0;

count = 0;

for(int i=0;i<itemNames.length;i++) {

newTotal = newTotal + price[i];

count++;

}

total = newTotal;

System.out.println("Total price of items : "+total);

System.out.println("Total items in cart : "+count);

calculatePrice.signalAll();

} catch (Exception e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

finally

{

itemsAndPrice.unlock();

}

}

c. Do you face any other problem? If yes, describe the problem.

A. After implementing the above solution everything looks fine and I don’t face any other problems.

d. If you have encountered any other problem in (c)? If so, implement the solution.

A. No, I don’t face any other issues.